Application No.  10/798,745                        Customer No. 01933
Response to Office Action

**Listing of Claims:**

1.    (Currently Amended) A polygon mirror which is bonded to a connection member that connects the polygon mirror to a bearing to support the polygon mirror about an axis of rotation thereof, said polygon mirror comprising:

5         a mirror body which is shaped in as a regular polygon and having includes circumferential surfaces, a top surface and a bottom surface, and which comprises a reflection surface formed on each of the circumferential surface surfaces;

a machining reference surface which is provided on one of

10      the top and bottom surfaces, and which is machined to form have a mirror surface and is used as a reference surface for machining the reflection surface on each of the circumferential surfaces; and

an assembling reference surface which is provided on one of

15      the top an and bottom surfaces , shaped in and is parallel to the machining reference surface, and which is machined to form a rough have a rougher surface than the machining reference surface; and

wherein the assembling reference surface is used as a

20      reference surface for assembling bonding the polygon mirror to the connection member with an adhesive.

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2.    (Currently Amended) A polygon mirror of claim 1, wherein

a surface roughness Ra of said ~~planished machining~~ assembling

reference surface is determined by the formula: ~~(a)~~

$$0.16\mu m \leq Ra < 21.8\mu m,$$

5        wherein said surface roughness Ra is an arithmetic mean

roughness specified in the JIS B0601 or ISO 468-1982.

~~0.16μm ≤ Ra ≤ 21.8 μm        (a)~~


3.    (Currently Amended) A polygon mirror of claim 1, wherein

a surface roughness Ra of said ~~planished machining~~ assembling

reference surface is determined by the formula ~~(b)~~

$$0.2\mu m \leq Ra \leq 20\mu m,$$

5        wherein said surface roughness Ra is an arithmetic mean

roughness specified in the JIS B0601 or ISO 468-1982.

~~0.2μm ≤ Ra ≤ 20 μm    (b)~~


4.    (Currently Amended) A polygon mirror of any one of

claims 1-3, wherein ~~at least~~ a circular groove is provided ~~in~~

~~circular form~~ along ~~either~~ at least one of an inside ~~or~~ and

an outside edge of said ~~roughed~~ assembling reference surface.


5.    (Currently Amended) A deflecting apparatus comprising:

a base member;


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a polygon mirror ~~having reflection surfaces formed in~~ shaped

as a regular polygon ~~on each circumferential surface thereof;~~ ~~and~~

5       a bearing rotatably mounted against the base member; and

a ~~flange~~ connection member ~~holding~~ which holds said polygon

mirror and connects the polygon mirror to the bearing, ~~being~~

~~rotatably mounted against~~ and which is connected to the bearing

to be rotatably mounted with the bearing about said base member;

10       wherein said polygon mirror ~~has~~ comprises:

a reflection surface formed on each circumferential

surface thereof;

a planished machining reference surface used as a

reference surface for machining when machining said reflection

15       surfaces; ~~as a reference surface for machining,~~ and

~~a roughed~~ an assembling reference surface, which is

rougher than and parallel to the machining reference surface, and

which is used as a reference surface for assembling said polygon

mirror; ~~as a reference surface for assembly, parallel with said~~

20       ~~planished machining reference surface for processing reference;~~

wherein said ~~roughed~~ assembling reference surface is ~~butted~~

abutted against and bonded onto said ~~flange~~ connection member

with an adhesive.

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6.    (Currently Amended) A deflecting apparatus of claim 5,
wherein ~~said~~ a surface roughness Ra of said ~~planished machining~~
assembling reference surface is determined by the formula: ~~(c)~~

$$0.16\mu m \leq Ra \leq 21.8\mu m,$$

5          wherein said surface roughness Ra is an arithmetic mean
roughness specified in the JIS B0601 or ISO 468-1982.

~~0.16μm ≤ Ra ≤ 21.8 μm~~

7.    (Currently Amended) A deflecting apparatus of claim 5,
wherein ~~said~~ a surface roughness Ra of said ~~planished machining~~
assembling reference surface is determined by the formula ~~(d)~~

$$0.2\mu m \leq Ra \leq 20\mu m,$$

5          wherein said surface roughness Ra is an arithmetic mean
roughness specified in the JIS B0601 or ISO 468-1982.

~~0.2 μm ≤ Ra ≤ 20 μm~~

8.    (Currently Amended) A polygon mirror of any one of
claims 5-7, wherein ~~at least~~ a circular groove is provided ~~in~~
~~circular form~~ along ~~either~~ at least one of an inside ~~or~~ and
an outside edge of said ~~roughed~~ assembling reference surface.

9.    (Currently Amended) An image forming apparatus equipped
with ~~an~~ the optical deflecting apparatus of any one of
claims 5-7.

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Claims 10-13 (Canceled).


14.   (Currently Amended) An image forming apparatus equipped with ~~an~~ the optical deflecting apparatus of claim 8.


15.   (New) A polygon mirror of claim 1, wherein the connection member transfers rotation torque to the polygon mirror.


16.   (New) A deflecting apparatus of claim 5, wherein the connection member transfers rotation torque to the polygon mirror.

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